SUMMARY

PURPOSE
Carries out a summary analysis.

DESCRIPTION
A summary analysis is a data analysis technique for computing and tabulating a variety of summary statistics for a data set. This includes measures of location (e.g., the mean), of dispersion (e.g., the standard deviation), of randomness (the autocorrelation), and of the distribution (e.g., the skewness).

SYNTAX
SUMMARY <y1> <SUBSET/EXCEPT/FOR qualification>
where <y1> is a response variable;
and where the <SUBSET/EXCEPT/FOR qualification> is optional.

EXAMPLES
SUMMARY Y
SUMMARY Y2

NOTE
Most of the statistics computed by SUMMARY can also be computed individually as LET subcommands.

DEFAULT
None

SYNONYMS
None

RELATED COMMANDS
LET = Compute various statistics and transformations.
4-PLOT = Generate a sequence plot, a lag plot, a histogram and a normal probability plot on the same page.

APPLICATIONS
Data analysis

IMPLEMENTATION DATE
Pre-1987
## PROGRAM

```plaintext
SKIP 25
READ MARSHAK.DAT Y
.
SUMMARY Y
```

The following output is generated.

```
SUMMARY

NUMBER OF OBSERVATIONS = 211

*******************************************************************************
* LOCATION MEASURES * DISPERSION MEASURES *
*******************************************************************************
* MIDRANGE = 0.2236850E+05 * RANGE = 0.8390000E+03 *
* MEAN = 0.2238015E+05 * STAND. DEV. = 0.1543979E+03 *
* MIDMEAN = 0.2238110E+05 * AV. AB. DEV. = 0.1221611E+03 *
* MEDIAN = 0.2238000E+05 * MINIMUM = 0.2194900E+05 *
* = * LOWER QUART. = 0.2229200E+05 *
* = * LOWER HINGE = 0.2229200E+05 *
* = * UPPER HINGE = 0.2248700E+05 *
* = * UPPER QUART. = 0.2248800E+05 *
* = * MAXIMUM = 0.2278800E+05 *
*******************************************************************************
```

### RANDOMNESS MEASURES

```
* AUTOCOEF = -0.5054735E-01 * ST. 3RD MOM. = -0.1358314E+00 *
* = 0.0000000E+00 * ST. 4TH MOM. = 0.3023729E+01 *
* = 0.0000000E+00 * ST. WILK-SHA = 0.8213547E+01 *
* = * UNIFORM PPCC = 0.9741324E+00 *
* = * NORMAL PPCC = 0.9980268E+00 *
* = * TUK -.5 PPCC = 0.8833071E+00 *
* = * CAUCHY PPCC = 0.6132092E+00 *
```

*******************************************************************************